

Test-I English Language

Directions (Q. 1-15): Read the passage carefully and answer the questions given below it. Certain words/phrases are given in bold to help you locate them while answering some of the questions.

We are in the midst of a severe economic crisis. Our macroeconomic indices are weakening. The first quarter growth figure has come in at 4.4 per cent and some analysts are projecting a figure for FY 2013-14 of below 4 per cent — the Hindu rate that we all thought was a historical memory. Inflation in critical items is well above double digits — year-on-year prices of vegetable goods have increased by 46 per cent; that of cereals by 18 per cent and proteins by 11 per cent. The rupee is hovering close to Rs. 70 to the dollar and the Sensex is gyrating, but in fall. The finance minister has pronounced a 10-point programme to narrow the fiscal deficit, balance the current account, stabilise the currency, **contain** inflation and bring the economy back onto the growth path. Whether he succeeds or not remains to be seen. The odds are against him. He has to **contend** with populist political colleagues, and the immune system of the economy has been so weakened that it seems no longer capable of countering the **convulsions** of the international market. But even if he does succeed, there is doubt that potential investors will bring India back onto their radar screen. Sure, "hot money" might flow back, but investments into the more stable and longer-term "bricks and mortar" and services sectors will most likely remain lacklustre.

This is because the current crisis is not just about "poor economics". It is also about the loss of confidence in the government's commitment to upholding the constitutional checks and balance of governance. It is about the weakening of the pillars upon which Brand India has been built and which so positively differentiated us from other emerging economies.

As every marketer knows, there is a difference between "advertising" and "branding". Advertising is a **tangible** instrument for hawking a product. Branding is an intangible asset that **embodies** the qualities, values and experience of the company. The two are, of course, interrelated. Advertising helps build the "brand" and the brand reinforces (hopefully) sales. But they are conceptually different.

When India was growing at 8 per cent plus, it was not difficult to develop a compelling advertorial for the country.

The pitch was pegged on the fundamentals of the economy — the large market, our youthful population, the reservoir of talent—and the ingredients of Brand India.

Economic growth had not done away with corruption, red tape and **shoddy** infrastructure, but these negatives were offset by the assurance that if and when the entry hurdles were overcome, the strength of our institutions would ensure a level playing field, respect for contracts and protection against the arbitrary and discretionary exercise of power.

Today, these assurances have been dented. Investors see not only an economy on the skids, but a governance process that is opaque and unpredictable. The government may have had "good" reasons for the spate of tax charges that have been slapped on the multinationals and for unilaterally rewriting binding contracts and passing orders with retroactive effect, but the result has been to make investors nervous about the operating environment, for the first time since the onset of economic reforms, boardroom discussions are not about specific investments but about the fundamentals of the Indian polity. People are asking **generic** questions. What is the nature of India's democracy? How strong are the institutions of the executive, legislature and judiciary? Have these institutions got so hollowed out that there is a power vacuum? And so, where does power reside? Investors will want satisfactory answers to these questions before they bring India back on their investment agenda.

Investors invest in a country's future. Whilst they may be influenced by its present they do not invest in it. Nor do they invest on the basis of a comparison between a country's past and its present. Herein lies our hope. We have messed up the present, but we can still recover the future. To do so the government will have to no doubt first resolve the current crisis. This will not be easy. The PM and FM are confident they can bring the fiscal and current account deficit under control. But unfortunately, the numbers are not adding up and the international market is not helping.

1. **Why has the author specifically mentioned that this is the first time since the onset of economic reforms that boardroom discussions are not about specific investment but about the fundamentals of the Indian polity?**

- (a) Because of excessive political interference in the economic matters of the country
- (b) Because of the proven inefficiency of the present Finance Minister and the Chairman of the Planning Commission
- (c) Because of the Induction of political leaders in the Cabinet Committee on Economic Affairs
- (d) Because of the severe economic crisis and failure of the govt on the economic front

12. Generic

- (a) specific (b) awkward (c) general
(d) difficult (e) rude

Directions (Q. 13-15): Choose the word/group of words which is **MOST OPPOSITE** in meaning to the word/group of words printed in bold as used in the passage.

13. Contain

- (a) enclose (b) incorporate
(c) Increase (d) decrease
(e) drop

14. Contend

- (a) agree (b) cede (c) clash (d) confront
(e) meet

15. Shoddy

- (a) shabby (b) cheap (c) sleazy (d) noble
(e) superior

Directions (Q. 16-20): Read each sentence to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is 'No error', the answer is (e). (Ignore errors of punctuation, if any.)

16. (a) Imagine, if Pakistan and India have been together / (b) the Taliban would have spread / (c) its poison / (d) all across India. / (e) No error
17. (a) When a nation starts to descend into a crisis / (b) the satire and the ironic humour / (c) of its hapless citizenry / (d) begins to blossom. / (e) No error
18. (a) Syed Abdul Karim Tunda is thought to be the mastermind (b)/ behind several bomb incidents in various Indian cities/(c) including a failed attempt in New Delhi /(d) during the 2010 Common wealth Games/ (e) No error
19. (a) Challenged by the leader of opposition in the Rajya Sabha/(b) to explain the current economic crisis/(c) the Prime Minister broke his vow of silence to say/(d) there was no need to become panic./ (e) No error
20. (a) A federal court in New York has issued summon / (b) to Congress president Sonia Gandhi for "shielding and protecting" leaders / (c) of her party who were allegedly involved / (d) in the anti-Sikh riots in India in 1984. / (e) No error

Directions (Q. 21-25): Each question below has two blanks, each blank indicating that something has been omitted. Find out which option can be used to fill up the blanks in the sentence in the same sequence to make it meaningfully complete.

21. Yasin Bhatkal, who was wanted in over two dozen terror cases _____ India and had dodged security agencies on several _____, was arrested in Raxaul on the India-Nepal border.

- (a) of, months (b) around, years
(c) in, times (d) across, occasions
(e) within, places

22. The Lok Sabha passed the land _____ Bill, even as parties expressed _____ on aspects of the legislation.

- (a) requisition, resentment
(b) acquisition, reservations
(c) requirement, anger
(d) distribution, dissatisfaction
(e) procurement, disappointment

23. A saram, the self-styled godman, that Congress leaders Sonia Gandhi and Rahul Gandhi were behind _____ him in the sexual assault case.

- (a) claimed, tarnishing (b) insulted, arresting
(c) alleged, confining (d) asked, accusing
(e) insinuated, framing

24. The government in UP has _____ praise for its handling of the VHP's plan for a Parikarma _____ Ayodhya.

- (a) received, around (b) achieved, of
(c) exclaimed, in (d) claimed, surrounding
(e) obtained, round

25. The government and the BSP entered into a fresh _____ after the Rajya Sabha passed a government _____ for appointment of two members in the JPC on 2G spectrum.

- (a) violence, legislation (b) scuffle, law
(c) confrontation, motion (d) argument, move
(e) discussion, ruling

Directions (Q. 26- 30): Rearrange the following six sentences (A), (B), (C), (D), (E), (F) and (G) in the proper sequence to form a meaningful paragraph and then answer the questions given below.

- (A) A person enrolled as an advocate under the Advocates Act, 1961, is entitled to practise law throughout the country.
- (B) In India, the law relating to legal profession is governed by the Advocates Act, 1961 and the rules framed thereunder by the Bar Council of India.
- (C) An advocate on the roll of a State Bar Council may apply for transfer to the roll of any other State Bar Council in the prescribed manner
- (D) It is a self-contained code of law relating to legal practitioners and provides for the constitution of State Bar Councils and Bar Council of India.
- (E) An advocate with his consent, may be designated as a senior advocate, if the Supreme Court or a

High Court is of the opinion that by virtue of his ability he deserves such distinction.

(F) There are two classes of advocates, namely, senior advocates and other advocates.

(G) No person can be enrolled as an advocate on the rolls of more than one State Bar Council.

26. Which of the following should be the FIRST sentence after rearrangement?

- (a) F (b) G (c) E (d) B (e) C

27. Which of the following should be the SECOND sentence after rearrangement?

- (a) C (b) D (c) E (d) F (e) G

28. Which of the following should be the THIRD sentence after rearrangement?

- (a) E (b) D (c) C (d) B (e) A

29. Which of the following should be the FOURTH sentence after rearrangement?

- (a) C (b) D (c) E (d) F (e) G

30. Which of the following should be the LAST (SEVENTH) sentence after rearrangement?

- (a) D (b) B (c) E (d) C (e) A

Test-II Reasoning Ability

Directions (Q. 31-36): Study the following information carefully and answer the given questions:

Eight candidates A, G, L, N, P, Q, R and S have applied for I BPS exam for different banks, viz BOB, BOI, Dena Bank, UBI, OBC, Indian Bank, Corporation Bank and UCO Bank but not necessarily in the same order. There are five male and three female candidates in this group. Each male and each female has applied from his/her city, viz Jaipur, Delhi, Noida, Kanpur, Patna, Ranchi, Gurgaon and Ghaziabad. No male has applied from Ranchi and Kanpur.

P has applied for Indian Bank from Ghaziabad. The one who has applied for Corporation Bank is neither from Noida nor from Kanpur. G has applied for OBC. His sister L has applied for Dena Bank from Jaipur. The one who belongs to Delhi has applied for BOB. The one who has applied from Noida is not a female. N has applied for UBI and her friend has applied for BOB. Q is from Gurgaon and has not applied either for Corporation Bank or for UCO Bank. The one who has applied for UCO Bank has applied neither from Patna nor from Noida. S has applied from Kanpur. A does not apply from Patna.

31. Which of the following groups is a group of female applicants?

- (a) G, N, L (b) N, Q, S (c) L, N, S (d) P, Q, R
(e) None of these

32. Who among the following has applied from Ranchi?

- (a) P (b) N (c) S (d) L
(e) None of these

33. Which of the following combinations is true?

- (a) A-UBI-Ranchi
(b) R-Corporation Bank-Noida
(c) L-UCO Bank-Jaipur
(d) G-OBC-Noida
(e) None of these

34. Who among the following has applied for BOB?

- (a) A (b) S (c) N (d) Q
(e) None of these

35. G belongs to which of the following cities?

- (a) Delhi (b) Ranchi (c) Noida (d) Gurgaon

- (e) None of these

36. Four of the five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?

- (a) P (b) R (c) A (d) L (e) Q

Directions (Q. 37-40): Each of the questions below consists of a question and two statements numbered I and II given below. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and give answer

- (a) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
(b) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
(c) if the data either in statement I alone or in statement II alone are sufficient to answer the question.
(d) if the data in both the statements I and II together are not sufficient to answer the question.
(e) if the data in both the statements I and II together are necessary to answer the question.

37. How is D related to A?

- I. D is married to E, who is brother of B.
II. A's son B is married to C, who is sister of D.

38. Which direction was Manish facing?

- I. Manish and Mohit were talking to each other face to face.
II. At 4 o'clock Manish's shadow was exactly on the left of Mohit.

39. What is the rank of R from the bottom in a class of 30 students?

- I. N is fourth from the top and there are five students between N and R.
II. The rank of K is fourth from the bottom and there are 17 students between K and R.

40. There are five students Aarti, Babita, Chandan, Dhiraj and Suman sitting around a circular table. Who is on the immediate right of Aarti?

- I. Aarti is second to the left of Dhiraj. who is not the neighbour of Babita.
- II. Babita is second to the right of Dhiraj and is an immediate neighbour of Chandan and Suman.

Directions (Q. 41-45): These questions are based on the information given below and the sentences labelled (A), (B), (C), (D), (E) and (F) given after them:

The Aam Aadmi Party (AAP) claims that it consults many stakeholders before it takes important decisions, like forming its first government in Delhi. Who did it consult before deciding that Delhi would not allow foreign direct investment (FDI) in supermarkets? The government of India took the decision to open up supermarkets to overseas investments after protracted debate in media, academia, civil society and Parliament, because in balance, the benefits of FDI in supermarkets outweighed the costs. Supermarkets create jobs. There are many other benefits as well.

- (A) If food retailers were allowed to buy direct from farmers, instead of going through a complex chain of politically-connected middlemen in states, it would reduce waste, speed up time from farm to plate, boost prices of farm produce for farmers and cut food inflation by eliminating middlemen's margins.
 - (B) AAP should withdraw the ban on FDI in supermarkets.
 - (C) There should be consistency in the style of decisionmaking.
 - (D) Debate in media is more meaningful than mere referendum.
 - (E) Foreign powers had manoeuvred the government of India in saying yes to FDI.
 - (F) By banning FDI. the AAP looks like an Aam Shopkeeper Party.
- 41. Which of the following has/have been assumed in the information in the paragraph given above?**
- (a) Only C (b) Only E (c) Only B
 - (d) Both B and C (e) Both B and E
- 42. Which of the following statements strengthen(s) the argument given in the paragraph above?**
- (a) Only D (b) Only E (c) Only A
 - (d) Both A and D (e) Both D and E
- 43. Which of the following is a benefit(s) of FDI in supermarkets?**
- (a) Only A (b) Only D (c) Only F
 - (d) Both A and D (e) Both A and F
- 44. Which of the following statements weaken(s) the argument given in the paragraph above?**
- (a) Only A (b) Only B (c) Only C

- (d) Only D (e) Only E

45. Which of the following can be a conclusion on the basis of the paragraph given above?

- (a) Only F (b) Only D (c) Only C (d) Only B
- (e) Both B and C

Directions (Q. 46-50): Study the following information carefully to answer the given questions.

A word and number arrangement machine when given an input line of words and numbers rearranges them follow my a particular rule in each step. The following is an illustration of the input and rearrangement (All the numbers are two-digit numbers.)

Input: 76 pink 83 colour 79 each 65 owl ice 81

Step I: each 76 pink 83 colour 79 65 owl ice 81

Step II: each 65 76 pink 83 colour 79 owl ice 81

Step III: each 65 ice 76 pink 83 colour 79 owl 81

Step IV: each 65 ice 76 owl pink 83 colour 79 81

Step V: each 65 ice 76 owl 79 pink 83 colour 81

Step VI: each 65 ice 76 owl 79 colour pink 83 81

Step VII: each 65 ice 76 owl 79 colour 81 pink 83

Step VII is the last step of the above input as the desired arrangement is obtained. As per the rules followed above find the appropriate step for the given input.

Input: magazine 14 desire 21 put 13 28 expireaeth ite 25 30

46. Which step number is the following output? activate 13 expire 14 input magazine desire 21 28 25 30

- (a) Step IV (b) Step V (c) Step VII
- (d) There is no such step (e) none of these

47. How many elements (words or numbers) are there between '14' and '25' as they appear in the Last step but one?

- (a) Two (b) Three (c) Four (d) Five (e) Six

48. Which word/number would be at the fifth position the right in Step III?

- (a) desire (b) 14 (c) input (d) 21
- (e) None of these

49. Which of the following represents the position of 'input' in the sixth step?

- (a) Seventh from the left (b) Fifth from the right
- (c) Fifth from the left (d) Sixth from the right
- (e) None of these

50. How many steps would be required to get the output?

- (a) Six (b) Seven (c) Five (d) Nine
- (e) Eight

Directions (Q. 51-53): Stuch the following information carefully and answer the given questions.

There are five bottles A, E, I, O and U arranged on a table but not necessarily in the same order. Bottle E. is to

the north of bottle O. Bottle I is to the south of bottle. E
Bottle A and Bottle U are in the east and west respectively
of bottle I.

51. In which direction is bottle O with respect to bottle I?

- (a) South (b) North (c) Either (a) or (b)
(d) East (e) North-east

52. If bottle I is exactly between E and O then in which direction is bottle A with respect to bottle O?

- (a) North (b) North-east (c) South-east
(d) South (e) None of these

53. In which direction is bottle U with respect to bottle E?

- (a) South (b) South-east
(c) West (d) South-west
(e) None of these

54. How many such pairs of letters are there in the word EDITION each of which has as many letters between them in the word as in the English alphabetical series?

- (a) One (b) Two (c) Three (d) Four
(e) None of these

55. In a certain code language RIVER is written as LUXOB. How is TEPID written in that code language?

- (a) HWRAF (b) HWQAF (c) HRNAF (d) AFRHW
(e) None of these

Directions (Q. 56-60): In each question below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts. Give answer

- (a) if only conclusion I follows.
(b) if only conclusion II follows.
(c) if either conclusion I or II follows.
(d) if neither conclusion I nor II follows.
(e) if both conclusions I and II follow.

56. Statements: All plastics are notes.

No note is a coin.
Some coins are papers.

- Conclusions: I. Some coins are plastics.
II. No coin is a note.

(57-58):

Statements: No graphic is a picture.
Some pictures are figures.
All symbols are figures.

57. Conclusions: I. Some figures are not graphics.

II. Some pictures are symbols.

58. Conclusions: I. All symbols being pictures is a possibility.

II. Some graphics are symbols.

(59-60):

Statements : Some birds are insects.
All birds are butterflies.
All insects are snakes.

59. Conclusions: I. Some snakes are birds.

II. Some butterflies are snakes.

60. Conclusions: I. All butterflies being insects is a possibility.

II. All birds being snakes is a possibility.

61. If the expression $R \geq V$ and $P < Q$ are true, then which of the following symbols should be placed in the blank spaces respectively in the given expression?

$Q _ R \geq N = P _ V$

- (a) $>, \geq$ (b) $=, >$ (c) $\geq, >$ (d) $>, >$
(e) None of these

62. Which of the following expressions is true, if the given expression is true?

$E > F \geq G = H \leq I < J$

- (a) $E > I$ (b) $J > G$ (c) $F \geq J$ (d) $E \geq H$
(e) None of these

63. Which of the following symbols should be placed in the blank spaces respectively to make the expression $Q > M$ and $P \geq M$ definitely true?

$M _ N _ O _ P _ Q$

- (a) $<, =, \leq, <$ (b) $\geq, >, =, >$
(c) $=, \geq, \geq, =$ (d) $\leq, =, \leq, <$
(e) None of these

64. There are three ladies L, M and N married to three men P, Q and R. All the men have a different profession while the women have none. L is married to P. M is not married to the CA. N is not married to the teacher. R is not a teacher and P is a lawyer. Which of the following statements is correct?

- (a) M is married to R, who is a teacher.
(b) N is married to R, who is a C A.
(c) L is married to P, who is a teacher.
(d) Only (b) and (c) are correct
(e) None of these

65. There are five books J, K, Y, W and X placed on a table. Y is placed just below J, W is placed just above X, and K is placed below Y and X. Which of the following books touches the surface of the table?

- (a) W (b) X (c) K (d) J (e) Y

Test-III Quantitative Aptitude

66. Kunal's present age is three years less than twice his age 12 years ago. Also, the ratio of Vikrant's present age to Kunal's present age is 4 : 9. What will be the age of Vikrant after 4 years?
- (a) 16 years (b) 17 years
(c) 18 years (d) 27 years
(e) Can't be determined
67. A hen and a goat were sold for Rs. 540, there by making a profit of 25% on hen and 20% on goat. By selling them for Rs. 538 the profit would be 20% on hen and 25% on goat. Find the cost (in Rs.) of each hen and each goat.
- (a) Rs. 250, Rs. 200 (b) Rs. 240, Rs. 220
(c) Rs. 225, Rs. 200 (d) Rs. 240, Rs. 200
(e) None of these
68. There is a team of five persons A, B, C, D and E. In how many different ways can they be seated on a bench if A and B never sit together?
- (a) 144 (b) 120 (c) 72 (d) 720
(e) None of these

Directions (Q. 69-70): Study the given information carefully and answer the questions that follow.

69. A box contains 6 red, 3 yellow and 2 green balls. If two balls are picked at random, what is the probability that both of them are red?
- (a) $\frac{3}{11}$ (b) $\frac{1}{2}$ (c) $\frac{4}{15}$ (d) $\frac{1}{7}$
(e) None of these
70. If two balls are picked at random from the box given in the above question, what is the probability that at least one of them is yellow?
- (a) $\frac{22}{91}$ (b) $\frac{27}{55}$ (c) $\frac{1}{456}$ (d) $\frac{7}{11}$
(e) None of these

Directions (Q. 71-75): What should come in place of question mark (?) in the following questions?

71. $5003 \times 99 - 194661 = ? \times 126$
(a) 2377 (b) 2386 (c) 2486 (d) 2586
(e) 2468
72. $[(6\sqrt{11} + \sqrt{11}) \times (7\sqrt{11} + 9\sqrt{11})] - (29)^2 = ?$
(a) 402 (b) $110\sqrt{11}$ (c) $112\sqrt{11}$ (d) 391
(e) 389
73. $8\frac{9}{47} \times 9\frac{13}{56} \times 7\frac{7}{11} \div 2\frac{4}{9} - 6\frac{3}{5} = ?$
(a) 488.4 (b) 420 (c) 223.6 (d) 413.6
(e) 229.65
74. $\sqrt{35721} \times \sqrt{4624} - (86)^2 = 543 + (?)^3$
(a) 18 (b) 19 (c) 17 (d) 16 (e) 13

75. $? = 77.5\% \text{ of } 230 + 75\% \text{ of } 22 + 35\% \text{ of } 140$
(a) 240.75 (b) 243.75 (c) 253.75 (d) 243.25
(e) None of these

Directions (Q. 76-80): What approximate value should come in place of question mark (?) in the following questions?

76. $\sqrt[3]{59322} \times (248 \div 11) = (?)^2$
(a) 36 (b) 35 (c) 39 (d) 41
(e) None of these
77. $177.5\% \text{ of } 2480 + 63.002 \times 19.995 - 61.899 = ?$
(a) 5500 (b) 5400 (c) 5600 (d) 5650
(e) 5760
78. $\frac{7}{16} \times 8022.66 + \frac{11}{20} \times 6822.44 = ?$
(a) 7260 (b) 7290 (c) 7210 (d) 7300
(e) 7200
79. $97975 \div 545 \times \sqrt[3]{515} = ?$
(a) 1400 (b) 1500 (c) 1480 (d) 1540
(e) 1440
80. $289.089 \times 4.27 + 5.004 \times 333.918 = ?$
(a) 2800 (b) 2850 (c) 2950 (d) 2900
(e) None of these

Directions (Q. 81-85): Find the number that will come in place of question mark (?) in the following number series.

81. 90 110 132 156 182 ?
(a) 207 (b) 307 (c) 309 (d) 323 (e) 210
82. 2 18 95 384 1155 ?
(a) 2212 (b) 2629 (c) 2735 (d) 2312
(e) 2412
83. 7 18 51 106 183 ?
(a) 282 (b) 395 (c) 295 (d) 280
(e) None of these
84. 37 42 57 82 117 ?
(a) 166 (b) 162 (c) 157 (d) 159
(e) None of these
85. 33 321 465 537 573 591 ?
(a) 600 (b) 610 (c) 590 (d) 595
(e) None of these
86. The average of four positive integers is 72.5. The highest integer is 117 and the lowest integer is 15. The difference between the remaining two integers is 12. Which is the higher of these two remaining integers?
(a) 73 (b) 84 (c) 70
(d) Cannot be determined (e) None of these
87. The population of a town is 8500. It increases by 20% in the first year and by another 25% in the

second year. What would be the population of the town after two years?

- (a) 10950 (b) 12750 (c) 11950 (d) 12550
(e) None of these

88. The difference between the simple interest and compound interest obtained on a principal amount at 5 p.c.p.a. after 2 years is Rs35. What is the principal amount?

- (a) Rs. 15,000 (b) Rs. 10,000
(c) Rs. 14,000 (d) Rs. 13,000
(e) None of these

89. 'A' can complete a piece of work in 12 days. 'A' and 'B' together can complete the same piece of work in 4 days. In how many days can 'B' alone complete the same piece of work?

- (a) 6 days (b) 8 days (c) 15 days
(d) 18 days (e) None of these

90. If $ab = 36$, which of the following proportions is correct?

- (a) $9 : a = 4 : b$ (b) $a : 18 = b : 3$
(c) $a : 6 = b : 6$ (d) $a : 9 = 4 : b$
(e) None of these

Directions (Q. 91-95): In the following questions, two equations I and II are given. You have to solve both the equations and give answer

- (a) If $x > y$ (b) If $x \geq y$ (c) If $x < y$ (d) If $x \leq y$
(e) If $x = y$ or the relationship cannot be determined.

91. I. $2x - 15y = 5$ **II.** $6x - 5y = -1$

92. I. $x^2 = 1521$ **II.** $y = \sqrt{1521}$

93. I. $x^2 - 12x + 35 = 0$ **II.** $y^2 - 9y + 20 = 0$

94. I. $4x + 3y = 16$ **II.** $2x + 2y = 9$

95. I. $x^2 + 7x + 12 = 0$ **II.** $y^2 + 5y + 6 = 0$

Directions (Q. 96-100): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided

in the statements are sufficient to answer the question. Read both the statements and give answer

- (a) if the data in statement I alone is sufficient to answer the question while the data in statement II alone is not sufficient to answer the question.
(b) if the data in statement II alone is sufficient to answer the question while the data in statement I alone is not sufficient to answer the question.
(c) if the data either in statement I alone or in statement II alone is sufficient to answer the question.
(d) if the data in both the statements I and II even together are not sufficient to answer the question.
(e) if the data in both the statements I and II together are necessary to answer the question.

96. What is the speed of a running train?

- I. The length of the train is 180 metres.
II. The train crosses another stationary train of 120 metres length in 60 seconds.

97. What is the speed of a boat in still water?

- I. The boat running downstream takes 6 hours from A to B
II. The boat running upstream takes 8 hours from B to C.

98. What is the difference between the age's of Samir and Sreekant?

- I. The ratio of their ages is 7 : 9.
II. 5 years hence the sum of their ages will be 58 years.

99. In how many days can Mohan alone complete the work?

- I. Mohan and Prakash together can complete the work in 17 days.
II. Rakesh works double as fast as Mohan and can alone complete the work in 10 days.

100. What is the per cent rate of simple interest per annum?

- I. The amount with the interest rate doubles in 5 years.
II. The interest earned in first year was Rs 10,000.

ANSWER KEY

1. (d)	2. (c)	3. (a)	4. (c)	5. (b)	6. (c)	7. (e)	8. (c)	9. (e)	10. (e)
11. (d)	12. (b)	13. (c)	14. (a)	15. (e)	16. (a)	17. (d)	18. (b)	19. (d)	20. (a)
21. (d)	22. (b)	23. (e)	24. (a)	25. (c)	26. (d)	27. (b)	28. (e)	29. (a)	30. (c)
31. (c)	32. (b)	33. (d)	34. (a)	35. (c)	36. (d)	37. (e)	38. (e)	39. (c)	40. (b)
41. (a)	42. (d)	43. (a)	44. (e)	45. (d)	46. (b)	47. (d)	48. (d)	49. (c)	50. (e)
51. (e)	52. (b)	53. (d)	54. (c)	55. (a)	56. (b)	57. (a)	58. (a)	59. (e)	60. (e)
61. (a)	62. (b)	63. (d)	64. (b)	65. (c)	66. (a)	67. (d)	68. (c)	69. (a)	70. (b)
71. (b)	72. (d)	73. (e)	74. (c)	75. (b)	76. (c)	77. (c)	78. (a)	79. (e)	80. (d)
81. (e)	82. (d)	83. (a)	84. (b)	85. (a)	86. (e)	87. (b)	88. (c)	89. (a)	90. (d)
91. (c)	92. (d)	93. (b)	94. (a)	95. (d)	96. (e)	97. (d)	98. (e)	99. (b)	100. (a)

Hint & Solutions

66. Let the present age of Kunal be $9x$ and that of Vikrant be $4x$. Then, according to the question,

$$9x = 2(9x + 12) - 3$$

$$\text{or } 18x - 9x = 27 \text{ or } 9x = 27$$

$$\therefore x = 3$$

Now, the present age of Kunal = $9 \times 3 = 27$ yrs and the present age of Vikrant = $4 \times 3 = 12$ yrs

Hence, after 4 yrs, Vikrant's age = $12 + 4 = 16$ yrs

67. Let the CP of hen and goat be Rs. x and Rs. y respectively.

According to the question,

$$\frac{5x}{4} + \frac{6y}{5} = 540$$

$$\text{or, } 25x + 24y = 10800 \quad \dots(i)$$

$$\text{Again, } \frac{6x}{5} + \frac{5y}{4} = 538$$

$$\text{or, } 24x + 25y = 10760 \quad \dots(ii)$$

Solving equation (i) and (ii),

we get $x = \text{Rs. } 240, y = \text{Rs. } 200$

68. Total number of persons is five. When there is no restriction they can be seated in $5!$ ways. but A and B can be arranged in $2!$ ways.

The required number of ways in which A and B do not sit together = $5! - 2 \times 4! = 4!(5 - 2)$

$$= 1 \times 2 \times 3 \times 4 \times 3 = 72$$

69. Total number of balls = $6 + 3 + 2 = 11$

Sample space $n(S) = {}^{11}C_2$

Now, the number of events $n(E) = {}^6C_2$

Required probability P (E)

$$= \frac{n(E)}{n(S)} = \frac{{}^6C_2}{{}^{11}C_2} = \frac{15}{55} = \frac{3}{11}$$

70. At least one is yellow = $1 - P$ (none is yellow)

$$= 1 - \frac{{}^8C_2}{{}^{11}C_2} = 1 - \frac{28}{55} = \frac{27}{55}$$

$$71. ? = \frac{5003 \times 99 - 194661}{126}$$

$$= \frac{495297 - 194661}{126} = \frac{300636}{126} = 2386$$

$$72. ? = 7\sqrt{11} \times 16\sqrt{11} - 841 = 1232 - 841 = 391$$

$$73. ? = \frac{385}{47} \times \frac{517}{56} \times \frac{84}{11} \times \frac{9}{22} - \frac{33}{5} = \frac{385 \times 27}{44} - \frac{33}{5} = \frac{51975 - 1452}{220} = \frac{50523}{220} = 229.65$$

$$74. 189 \times 68 - (86)^2 - 543 = (?)^3$$

$$32852 - 7396 - 543 = (?)^3$$

$$\text{or, } ? = \sqrt[3]{4913} = 17$$

$$75. ? = \frac{77.5 \times 230}{100} + \frac{75 \times 22}{100} + \frac{35 \times 140}{100} = 178.25 + 16.5 + 49 = 243.75$$

$$76. (?)^2 = \sqrt[3]{59322} \times (428 \div 11)$$

$$= \sqrt[3]{39 \times 39 \times 39} \times 38.90$$

$$(\because 59322 \approx 59319)$$

$$= 39 \times 39 = (39)^2$$

$$\therefore ? = 39$$

$$77. ? = \frac{177.5 \times 2480}{100} + 63 \times 20 - 62$$

$$= 4402 + 1260 - 62 = 5600$$

$$78. ? = \frac{7}{16} \times 8022.66 + \frac{11}{20} \times 6822.44$$

$$= 3509.91 + 3752.34 \approx 7260$$

$$79. ? = \frac{97975}{545} \times \sqrt{515} \quad (\because 515 \approx 512)$$

$$= 179.77 \times 8 = 180 \times 8 = 1440$$

$$80. ? = 290 \times 4.25 + 5 \times 334$$

$$= 1232.5 + 1670 \approx 2900$$

81. The series is +20, +22, +24, +26, +28...

82. The series is $2 \times 6 + 6 = 18$

$$18 \times 5 + 5 = 95$$

$$95 \times 4 + 4 = 384$$

$$384 \times 3 + 3 = 1155$$

$$1155 \times 2 + 2 = 2312$$

83. The series is $+(11 \times 1), +(11 \times 3), +(11 \times 5), +(11 \times 7)...$

84. The series is $37 + (5 \times 1) = 42$

$$42 + (5 \times 3) = 57$$

$$57 + (5 \times 5) = 82$$

$$82 + (5 \times 7) = 117$$

$$117 + (5 \times 9) = 162$$

85. The series is $+(9 \times 32), +(9 \times 16), +(9 \times 8), +(9 \times 4), (9 \times 2)...$

86. We have, $117 + x + (x + 12) + 15 = 72.5 \times 4$

[where x is the lower integer among the remaining two integers.]

$$\Rightarrow 2x = 290 - 144 = 146$$

$$\therefore x = 73$$

Hence the higher integer (among the remaining two integers) $= 73 + 12 = 85$

87. The total population after two years

$$= 8500 \times \frac{120}{100} \times \frac{125}{100} = 12,750$$

88. In case of simple interest, the total interest for two years is $(5 + 5 =) 10\%$ of the principal amount whereas at compound interest the total interest for two years is $\left(5 + 5 + \frac{5 \times 5}{100} =\right) 10.25\%$ of the principal amount.

hence we can conclude that Rs. 35 is $(10.25 - 10 =) 0.25\%$ of the principal amount.

$$\text{Hence the required amount} = \frac{35 \times 100}{0.25}$$

$$= \text{Rs. } 14,000$$

89. Quicker Method : $\frac{12 \times 4}{12 - 4} = 6$ days

Other Method : Suppose the work consists of making 12 pillars. Since A can complete the work in 12 days, this implies that A can make one pillar in a day. Similarly, we get that A and B together can make three pillars in a day. Hence we can conclude that B can make two pillars in a day. Hence, the total work (12 pillars) can be completed by B in $(12 \div 2 =) 6$ days.

90. Go through the options.

$$\frac{a}{9} = \frac{4}{b}$$

$$a \cdot b = 9 \times 4 = 36$$

91. I. $2x - 15y = 5$

$$6x - 45y = 15 \quad \dots(i)$$

$$\text{II. } 6x - 5y = -1 \quad \dots(ii)$$

Subtracting (ii) from (i), we get

$$-40y = 16$$

$$\therefore y = -\frac{16}{40} = -\frac{2}{5}$$

Now, using I, we get

$$2x - 15(-2/5) = 5$$

$$\text{or, } 2x + 6 = 5$$

$$\text{or, } x = -1/2$$

$$\text{Hence, } x < y \quad [\because -2/5 > -1/2]$$

92. From I : $x = \pm 39$

From II : $y = 39$

$$\text{Hence, } x \leq y.$$

93. I. $x^2 - 12x + 35 = 0$

$$\text{or, } x^2 - 7x - 5x + 35 = 0$$

$$\text{or, } x(x - 7) - 5(x - 7) = 0$$

$$\text{or, } (x - 5)(x - 7) = 0$$

$$\text{or, } x = 5 \quad \text{or } 7$$

$$\text{II. } y^2 - 9y + 20 = 0$$

$$\text{or, } y^2 - 5y - 4y + 20 = 0$$

$$\text{or, } y(y - 5) - 4(y - 5) = 0$$

$$\text{or, } (y - 4)(y - 5) = 0$$

$$\text{or, } y = 4 \quad \text{or } 5$$

$$\text{Hence, } x \geq y$$

94. I. $4x + 3y = 16$... (i)

$$\text{II. } 2x + 2y = 9$$

$$\Rightarrow 4x + 4y = 18 \quad \dots(ii)$$

From (i) and (ii), we get

$$-y = -2$$

$$\text{or, } y = 2$$

Now, using I, we get

$$4x + 3 \times 2 = 16$$

$$\text{or, } 4x = 10$$

$$\text{or, } x = 2.5$$

$$\text{Hence, } x > y.$$

95. I. $x^2 + 7x + 12 = 0$

$$\text{or, } x^2 + 4x + 3x + 12 = 0$$

$$\text{or, } x(x + 4) + 3(x + 4) = 0$$

$$\text{or, } (x + 3)(x + 4) = 0$$

$$\text{or, } x = -3 \quad \text{or } -4$$

$$\text{II. } y^2 + 5y + 6 = 0$$

$$\text{or, } y^2 + 3y + 2y + 6 = 0$$

$$\text{or, } y(y + 3) + 2(y + 3) = 0$$

$$\text{or, } (y + 2)(y + 3) = 0$$

$$\text{or, } y = -2 \quad \text{or } -3$$

$$\text{Hence, } x \leq y$$

96. From I and II : we get :

Speed of the running train

$$= \frac{(180 + 120)}{60} = 5 \text{ m/sec}$$

98. From I and II : we get

$$7k + 9k = 58 - 5 \times 2$$

$$\text{or, } 16k = 48$$

$$\therefore k = 3$$

Now, the required difference between the ages of Samir and Sreekant

$$= 9 \times 3 - 7 \times 3 = 6 \text{ yrs}$$

99. From II : we get :

Ratio of the efficiencies of Rakesh and Mohan = 2 : 1

Since Rakesh alone can complete the work in 10 days,
Mohan will complete the same work in $(10 \times 2 =) 20$ days.

100. From I : We get

$$\text{rate of interest} = \frac{100}{5} = 20\%$$